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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 10/644,513 | 08/20/2003 | Bryce A. Jones | 2305 | 6581 |
| 28005 | 7590 | 02/22/2007 | EXAMINER | |
| SPRINT 6391 SPRINT PARKWAY KSOPHT0101-Z2100 OVERLAND PARK, KS 66251-2100 | | | NGUYEN, TUAN HOANG | |
| | | | ART UNIT | PAPER NUMBER |
| | | | 2618 | |
| SHORTENED STATUTORY PERIOD OF RESPONSE | MAIL DATE | DELIVERY MODE | | |
| 3 MONTHS | 02/22/2007 | PAPER | | |

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

| | | |
|------------------------------|----------------------------|------------------|
| Office Action Summary | Application No. | Applicant(s) |
| | 10/644,513 | JONES ET AL. |
| | Examiner Tuan H. Nguyen | Art Unit 2618 |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on 17 November 2006.
- 2a) This action is **FINAL**. 2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 1-4 and 6-19 is/are pending in the application.
 - 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) Claim(s) _____ is/are allowed.
- 6) Claim(s) 1-4 and 6-19 is/are rejected.
- 7) Claim(s) _____ is/are objected to.
- 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on _____ is/are: a) accepted or b) objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

| | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____. | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| | 6) <input type="checkbox"/> Other: _____. |

DETAILED ACTION

Response to Arguments

1. Applicant's arguments filed on 11/17/2006 with respect to claims 1-4 and 6-19 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

3. Claims 1-4, 6-9, and 12-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Karaoguz et al. (U.S PUB. 2002/0059434 hereinafter, "Karaoguz") in view of Sundar et al. (U.S PUB. 2003/0134636 hereinafter, "Sundar").

Consider claim 1, Karaoguz teaches a wireless local area network (WLAN) for providing wireless telecommunications services to a multi-mode mobile station, said multi-mode mobile station being able to wirelessly communicate with a wireless wide area network (WWAN) when operating in a first wireless coverage area, said WWAN including a first data register that contains a first data record for multi-mode mobile

station (fig. 2 page 3 [0038]), said WLAN comprising: at least one wireless access point providing a second wireless coverage area, said multi-mode mobile station being able to wirelessly communicate with at least one wireless access point when multi-mode mobile station operates in second wireless coverage area (fig. 3 page 3 [0041]).

Karaoguz does not explicitly show that a private branch exchange (PBX) communicatively coupled to said at least one wireless access point; a second data register communicatively coupled to said PBX and to said first data register, wherein said second data register stores a second data record for multi-mode mobile station. When multi-mode mobile station operates in said second wireless coverage area, said second data register being able to transmit at least one mobility management message to said first data register, whereby said at least one mobility management message facilitates roaming between said first and second wireless coverage areas by multi-mode mobile station.

In the same field of endeavor, Sundar teaches a private branch exchange (PBX) communicatively coupled to said at least one wireless access point; a second data register communicatively coupled to said PBX and to said first data register, wherein said second data register stores a second data record for multi-mode mobile station. When multi-mode mobile station operates in said second wireless coverage area, said second data register being able to transmit at least one mobility management message to said first data register, whereby said at least one mobility management message facilitates roaming between said first and second wireless coverage areas by multi-mode mobile station (pages 8 and 9 [0102] through [0105]).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to use, a private branch exchange (PBX) communicatively coupled to said at least one wireless access point; a second data register communicatively coupled to said PBX and to said first data register, wherein said second data register stores a second data record for multi-mode mobile station. When multi-mode mobile station operates in said second wireless coverage area, said second data register being able to transmit at least one mobility management message to said first data register, whereby said at least one mobility management message facilitates roaming between said first and second wireless coverage areas by multi-mode mobile station, as taught by Sundar, in order to provide wireless telecommunications services to a multi mode mobile station uses such area-identifying information to determine whether to perform the detection operation.

Consider claim 2, Sundar further teaches second data register is integrated with PBX (page 8 [0101]).

Consider claim 3, Sundar further teaches PBX is communicatively coupled to a packet-switched network (page 8 [0102]).

Consider claim 4, Sundar further teaches PBX is communicatively coupled to a circuit-switched telephone network (page 8 [0102]).

Consider claim 6, Sundar further teaches at least one mobility management message includes a registration message that second data register sends to first data register when multi-mode mobile station operates in wireless coverage area, registration message identifying multi-mode mobile station (page 4 [0067] and [0068]).

Consider claim 7, Sundar further teaches at least one mobility management message includes a routing message, routing message including routing information to route a call to multi-mode mobile station (page 1 [0012]).

Consider claims 8 and 16, Sundar further teaches routing information includes a directory number associated with said PBX (page 9 [0105]).

Consider claims 9 and 17, Sundar further teaches routing information includes a directory number associated with a media gateway communicatively coupled to said WLAN via a packet-switched network (page 9 [0105]).

Consider claim 12, Karaoguz teaches a method of mobility management of a multi-mode mobile station, said multi-mode mobile station being able to wirelessly communicate with a wireless wide area network (WWAN) and with a wireless local area network (WLAN) (fig. 2 page 3 [0038]), said method comprising: said multi-mode mobile station associating with a wireless access point of said WLAN (page 3 [0041]).

Karaoguz does not explicitly show that a private branch exchange (PBX), communicatively coupled to said wireless access point, storing information regarding said multi-mode mobile station in a WLAN data register; and said WLAN data register sending a registration message to a WWAN data register in said WWAN, said registration message identifying said multi-mode mobile station.

In the same field of endeavor, Sundar teaches a private branch exchange (PBX), communicatively coupled to said wireless access point, storing information regarding said multi-mode mobile station in a WLAN data register (page 9 [0105]); and said WLAN data register sending a registration message to a WWAN data register in said WWAN, said registration message identifying said multi-mode mobile station (page 4 [0067] and [0068]).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to use, a private branch exchange (PBX), communicatively coupled to said wireless access point, storing information regarding said multi-mode mobile station in a WLAN data register; and said WLAN data register sending a registration message to a WWAN data register in said WWAN, said registration message identifying said multi-mode mobile station, as taught by Sundar, in order to provide wireless telecommunications services to a multi mode mobile station uses such area-identifying information to determine whether to perform the detection operation.

Consider claim 13, Sundar further teaches PBX receiving a service registration message from multi-mode mobile station, service registration message identifying multi-

mode mobile station (page 4 [0067] and [0068]); and PBX sending a registration notification message to WLAN data register, registration notification message identifying multi-mode mobile station (page 4 [0067] and [0068]).

Consider claim 14, Sundar further teaches WLAN data register storing a data record for multi-mode mobile station (page 8 [0100]).

Consider claim 15, Sundar further teaches WLAN data register receiving a routing request from said WWAN (page 9 [0105]); and sending a routing message to said WWAN data register, said routing message including routing information to route a call to said multi-mode mobile station (page 9 [0105]).

4. Claims 10-11 and 18-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Karaoguz in view of Sundar and further in view of Thornton et al. (U.S PUB. 2002/0101860 hereinafter “Thornton”).

Consider claim 10, Karaoguz and Sundar, in combination, fails to teaches routing information includes an Internet Protocol (IP) address of PBX.

However, Thornton teaches routing information includes an Internet Protocol (IP) address of PBX (page 32 [0300]).

Therefore, it is obvious to one of ordinary skill in the art at the time the invention was made to incorporate the disclosing of Thornton into view of Karaoguz and Sundar,

in order for use therein, for a telephony gateway intended for use, e.g., paired use, at opposite ends of a data network connection, in conjunction with at each end, e.g., a private branch exchange (PBX) for automatically routing telephone calls, e.g., voice, data and facsimile, between two peer PBXs over either a public switched telephone network (PSTN) or a data network.

Consider claims 11 and 19, Thornton further teaches routing information includes an Internet Protocol (IP) address of multi-mode mobile station (page 1 [0007]).

Conclusion

5. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Art Unit: 2618

6. Any response to this action should be mailed to:

Mail Stop _____ (Explanation, e.g., Amendment or After-final, etc.)

Commissioner for Patents

P.O. Box 1450

Alexandria, VA 22313-1450

Facsimile responses should be faxed to:

(571) 273-8300

Hand-delivered responses should be brought to:

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Randolph Building

401 Dulany Street

Alexandria, VA 22313

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tuan H. Nguyen whose telephone number is (571)272-8329. The examiner can normally be reached on 8:00Am - 5:00Pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Maung Nay A. can be reached on (571)272-7882882. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

Information Consider the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Tuan Nguyen
Examiner
Art Unit 2618